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SB SAT @ AMSAT $ANS-348.01
26TH ANNUAL SKN ON OSCAR

HR AMSAT NEWS SERVICE BULLETIN 348.01 FROM AMSAT HQ
SILVER SPRING, MD, DECEMBER 14, 1997
TO ALL RADIO AMATEURS BT
BID: $ANS-348.01

Amateur radio operators worldwide are cordially invited to join in the 26th annual Straight Key Night on OSCAR, sponsored by AMSAT-NA for ham radio satellite enthusiasts.

According to Ray Soifer, W2RS, it's entirely unofficial with no rules, no scoring and no need to send in a log. Just call CQ SKN in the CW passband segment of any OSCAR satellite from 0000 to 2359 UTC on January 1, 1998, or answer a CQ SKN call from another station. OSCAR Zero (EME) contacts count too.

Of course, all SKN operating must be done with a straight hand key. Those participating are encouraged to nominate someone they worked for recognition as having the "best fist." To send in a "best fist" nomination, please send it to;

e-mail - w2rs@amsat.org

packet radio - W2RS @ WA2SNA or
W2RS @ GB7HSN

Regular mail can also be sent to the W2RS callbook address. Those nominated will be featured in a bulletin sent to many of the amateur radio publications and posted via ANS, packet radio and the Internet in early February.

[ANS thanks Ray Soifer, W2RS, for this information]

SB SAT @ AMSAT $ANS-348.02
KC5VPF GETS EXTRA TIME ON MIR

HR AMSAT NEWS SERVICE BULLETIN 348.02 FROM AMSAT HQ
SILVER SPRING, MD, DECEMBER 14, 1997
TO ALL RADIO AMATEURS BT
BID: $ANS-348.02

NASA has delayed next month's space shuttle flight to Mir, leaving American astronaut David Wolf, KC5VPF, aboard the space station for at least another few days. The shuttle Endeavour was supposed to blast off January 15, but NASA announced December 8 that January 20 will be the new launch date.

Wolf, who's been on Mir since late September, learned of the delay last weekend. The delay will give the Russian crew time to do additional work on Mir, including three spacewalks and the arrival of another supply ship. NASA also wants to check out problems discovered on the shuttle Columbia which returned to Earth last week after a two-week mission. Also, one of Endeavour's cargo bay doors

accidentally was dented last week.

During the January mission, the Endeavour will pick up Wolf and drop off his replacement, Andy Thomas, KD5CHF. Thomas will be the last US astronaut to live aboard Mir.

[ANS thanks the ARRL for the bulletin.]

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SB SAT @ AMSAT $ANS-348.03
HAM SATELLITE FREQUENCIES OK AT WRC '97

HR AMSAT NEWS SERVICE BULLETIN 348.03 FROM AMSAT HQ
SILVER SPRING, MD, DECEMBER 14, 1997
TO ALL RADIO AMATEURS BT
BID: $ANS-348.03

Frequency allocations used in amateur radio satellite communications fared well at the now concluded World Radio Conference (WRC 97) held in Geneva, Switzerland.

WRC 97 delegates did agree to upgrade the Earth Exploration Satellite Service from secondary to primary at 1215 to 1300 MHz, which should have only minimal impact on amateur use of 1240-1300 MHz. The presence of these satellites reduces the possibility that other, less-compatible services might later be introduced into this band.

In other allocation decisions, amateur satellite segments were not included among allocations for wind profiler radars. Except for a worldwide primary allocation at 1270 to 1295 MHz, the only specific allocations for wind profiler radars are in Region 1, and those are on a secondary basis.

Region 2 administrations were urged to implement wind profilers in radio location bands at 440 to 450 MHz, 904 to 928 MHz, 1270 to 1295 MHz and 1300 to 1375 MHz, while protecting amateur satellite and weak-signal operations. The delegates also agreed that the frequencies between 420 to 435 MHz or 438 to 440 MHz could be considered for use in situations where there was incompatibility between wind profiler radars and other radio applications. In this case, too, the amateur-satellite segment is protected.

For an in depth report on WRC 97, visit the ARRL's website at:
www.arrl.org

[ANS thanks the ARRL and Amateur Radio Newsline for this information]

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SB SAT @ AMSAT $ANS-348.04
PLYMOUTH BALLOON LAUNCH SUCCESSFUL

HR AMSAT NEWS SERVICE BULLETIN 348.04 FROM AMSAT HQ
SILVER SPRING, MD, DECEMBER 14, 1997
TO ALL RADIO AMATEURS BT
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Hank Riley, N1LTV, balloon launch Technical Director for PCIS-1, a small, high altitude balloon with a tiny expendable 2 meter CW beacon aboard, reports the balloon was launched December 9, 1997 under near perfect sky and wind conditions.

Winds were very light and Hank says the balloon rose gently almost straight up and then off to the north. Optical contact (without even

binoculars for aid) was maintained for almost 20 minutes.

The beacon signal was picked up by N1LTV (at 24 statute miles distant) within just minutes of launch using only a 2 meter FM handheld and a four element beam. At 15 minutes into the flight, Hank was able to copy the beacon with a rubber duck antenna attached to the HT.

N1LTV is awaiting QSL reports. Several trackers have signal records covering well over an hour of beacon transmissions. Hank also reminds stations that it's also quite valuable to hear from those stations who attempted to copy the balloon and did not. This will aid in the effort to understand signal conditions during the flight.

An SASE if required if you'd like a Balloon QSL card. N1LTV asks stations to include information about your receiving and antenna equipment, as it will be useful for the post-flight analysis. Hank reports his callbook address should be used for all QSL requests.

[ANS thanks Hank Riley, N1LTV for this information]

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SB SAT @ AMSAT $ANS-348.05
T49C NEWS

HR AMSAT NEWS SERVICE BULLETIN 348.05 FROM AMSAT HQ
SILVER SPRING, MD, DECEMBER 14, 1997
TO ALL RADIO AMATEURS BT
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Mike, N1JEZ, reports that if you were fortunate enough to work T49C via satellite last November, you should check out their Web site at:

http://sk7do.te.hik.se/clubs/sk0ux/T48RCT.html

There is an "electronic" QSL server online. Search for your call. When it comes up, select it and download a .PS file (Postscript). Send this to your printer and you will have a QSL card. The satellite contacts made by T49C were in addition to the over 8,000 HF contacts the DXpedition made from the rare Cuban grid square (FL 11) during the CQ WW CW contest.

[ANS thanks Goran, SM0DRD, and Mike, N1JEZ for this information]

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SB SAT @ AMSAT $ANS-348.06
WEEKLY SATELLITE REPORT PT 1

HR AMSAT NEWS SERVICE BULLETIN 348.06 FROM AMSAT HQ
SILVER SPRING, MD, DECEMBER 14, 1997
TO ALL RADIO AMATEURS BT
BID: $ANS-348.06

MIR
As part of ongoing frequency experiments to improve Amateur Radio operations on board MIR, and to better understand how these frequencies will be effective on the International Space Station, MIR will begin a 2-phase frequency experiment beginning December 1, 1997 and ending on May 31, 1997.

For phase 1, a 70cm/2m crosslink experiment will operate for a 3 month period from December 1, 1997 up to March 1, 1998.

On December 1, 1997 the MIR operating frequencies will change to:

Uplink: 437.850 MHz Downlink: 145.800 MHz

Phase 2 of this experiment will use a 2 meter-only set of uplink and downlink frequencies. This phase of the experiment will begin on March 1, 1998 and will also be of 3 months duration.
[ANS thanks the MIREX team for this information]

SAFEX, MIR 70cm Repeater (Uplink 435.750 MHz FM, Downlink 437.950 MHz FM, subaudible tone 141.3 Hz)
The SAFEX activity very intermittent.
[ANS thanks the MIREX team for this information]

RS-12
(Uplink, 145.91-145.95 MHz CW/SSB, Downlink 29.41-29.45 MHz)
Operational, now in mode A.

RS-15
(Uplink 145.858-145.898 MHz CW/SSB, Downlink 29.354-29.394 MHz CW/SSB)
Operational.

RS-16
At this time only the beacons are on.
Transponder information on RS-16.

Uplink = 145.915 - 145.948 MHz
Downlink = 29.415 - 29.448 MHz
Beacons = 29.408 and 29.451 MHz
Pwr 29 MHz Down = 1.2 W /4 W

Beacon 1 = 435.504 MHz
Beacon 2 = 435.548 MHz
Pwr 435 MHz Beacons = 1.6 W

RS-17
Operational. 145.820 MHz
Sputnik RS-17 is still going strong. Its 100 mw beacon has been head around the world. Sputnik has a tentative life expectancy of 3-6 weeks on batteries. There are no solar panels on Sputnik. Since it was launched on November 3, 1997, it is expected to last until the December time frame Attitude Sputnik is now flying ahead and BELOW the Mir Space Station.

QSL Information is as follows:

Sergey Samburov (RV3DR)
P.O. Box 73
Korolev-10 City
141070, Russia
or
FR5KJ Radio Club
College Jules Reydellet
103 Rue de la Republique
97 489 Saint Denis Cedex
Reunion Island , France
[ANS thanks the MIREX team for this information]

AO-10
(Uplink 435.030-435.18 MHz CW/LSB, Downlink 145.975-145.825 MHz CW/USB)
Operational.

AO-27
(Uplink 145.85 MHz FM, Downlink 436.792 MHz FM)
Operational The control ops have programmed AO-27 to start earlier in its pass.

[ANS thanks Michael Wyrick, N4USI, AO-27 Control-op, for this update]

FO-20
(Uplink 145.9-146.0 MHz CW/LSB, Downlink 435.8-435.9 MHz CW/USB)
Operational. FO-20 in mode JA continuously.
[ANS thanks Kazu Sakamoto, JJ1WTK, for this report]

FO-29
Voice/CW Mode JA
(Uplink 145.9-146.0 MHz CW/LSB, Downlink 435.8-435.9 MHz CW/USB)
Digital Mode JD
(Uplink 145.85, 145.87, 145.910 MHz FM, Downlink 435.910 MHz FM 9600
baud BPSK)
Operational.
12 Dec. 08:11z JD 9600
19 Dec. 08:49z Digi-talker
26 Dec. 07:42z JA
09 Jan. 07:14z JD 1200
16 Jan. 07:52z JD 9600
23 Jan. 08:30z JA
30 Jan. 07:24z JD 1200

[ANS thanks Kazu Sakamoto, JJ1WTK, for this report.]
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SB SAT @ AMSAT $ANS-348.07
WEEKLY SATELLITE REPORT PT 2

HR AMSAT NEWS SERVICE BULLETIN 348.07 FROM AMSAT HQ
SILVER SPRING, MD, DECEMBER 14, 1997
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KO-23
(Uplink 145.85, 145.9 MHz FM, Downlink 435.175 MHz FM,
9600 Baud FSK)
KO-23 is becoming useful with download efficiencies climbing above 50%.
With KO-23 becoming eclipsed once again the operation is improving as the
satellite cools.
[ANS thanks Jim Weisenberger, AA7KC, for this report]

KO-25
(Uplink 145.980 MHz FM, Downlink 436.5 MHz FM, 9600 Baud FSK.)
KO-25 operating normally.
[ANS thanks Jim Weisenberger, AA7KC, for this report]

OSCAR-11
(Downlink 145.825 MHz. FM, 1200 Baud PSK. Beacon 2401.500 MHz)
Operating normally.

The operating schedule is unchanged.
ASCII status (210 seconds)
ASCII bulletin (60 seconds)
BINARY SEU (30 seconds)
ASCII TLM (90 seconds)
ASCII WOD (120 seconds)
ASCII bulletin (60 seconds)
BINARY ENG (30 seconds)

The mode-S beacon is ON, transmitting an unmodulated carrier, but
telemetry indicates that it has partially failed, and delivering half
power. This beacon is a useful test source for those testing mode-S
converters, prior to the launch of P3-D. It is considerably weaker
than DOVE, which should be used for initial testing. Any reports of

reception on 2401.00 MHz would be most welcome. Please e-mail reception reports to g3cwv@amsat.org.

The 435.025 MHz beacon is normally OFF. However it can sometimes be heard when the satellite is being commanded by ground control, (i.e. within range of Guildford, UK). When the 435 beacon is transmitting, the 145 beacon is normally OFF. The data transmitted is mainly binary.

OSCAR-11 users are welcome to visit the G3CWV web site. It contains some software for capturing data, and decoding ASCII telemetry and the WOD survey. There is an archive of raw data (mainly WOD) for analysis, which is continually being expanded, as new data is captured.
The URL is - http://www.users.zetnet.co.uk/clivew/
[ANS thanks Clive Wallis, G3CWV, for this information]

AMSAT-OSCAR-16 (PACSAT)
(Uplink 145.9, 145.92, 145.94, 145.86 MHz FM, 1200 bps Manchester FSK
Downlink 437.0513 MHz SSB, 1200 bps RC-BPSK 1200 Baud PSK.
Beacon 2401.1428 MHz.)
Operating normally.
uptime is 1182/05:45:59. Time is Sat Dec 13 11:14:47 1997
+X (RX) Temp -7.263 D
RX Temp 0.603 D
Bat 1 Temp 9.680 D
Bat 2 Temp 6.049 D Baseplt Temp 6.049 D
RC PSK BP Temp -0.002 D RC PSK HPA Tmp 1.209 D
+Y Array Temp 3.024 D PSK TX HPA Tmp -0.607 D
+Z Array Temp -7.263 D

Total Array C= 0.417 Bat Ch Cur=-0.020 Ifb= 0.028 I+10V= 0.346
TX:010C BCR:7F PWRC:59F BT: A WC:25 EDAC:3C

Information about telemetry values and WOD files can be found at
http://www.arrakis.es/~ea1bcu/wod.htm
[ANS thanks Miguel A. Menendez, EA1BCU, for this report]

DO-17(DOVE)
(Downlink 145.825 MHz FM, 1200 Baud AFSK. Beacon 2401.220 MHz)
The DOVE S band beacon is on. The frequency is 2401.220 MHz. The 2 meter transmitter is also on, 145.825 MHz. Telemetry is being sent about every 30 seconds
[ANS thanks Jim White, WD0E, for this update]

WEBERSAT (WO-18)
(Downlink 437.104 MHz SSB, 1200 Baud PSK AX.25)
Bob Argyle, KB7KCL reports that WEBERSAT-OSCAR-18 is gathering and sending Whole Orbit Data. The PHOTO task is being uploaded and the command team hopes to have pictures and spectra by about the 12th of December. WO-18's return to service is suspected to be seasonal in nature. Bob sends thanks to all those who have sent telemetry received from WO-18.
[ANS thanks Bob Argyle, KB7KCL, and SpaceNews for this update.]

LUSAT-OSCAR-19
(Uplink 1200 bps Manchester FSK Uplinks: 145.84, 145.86, 145.88, 145.90 MHz FM, Downlink 437.125 MHz SSB, 1200 bps RC-BPSK.)
Operating normally.
uptime is 906/20:47:56. Time is Sat Dec 13 10:53:06 1997
+X (RX) Temp -4.357 D
RX Temp 0.131 D
Bat 1 Temp 2.374 D
Bat 2 Temp 3.496 D
RC PSK BP Temp -1.552 D RC PSK HPA Tmp -2.674 D

+Y Array Temp 3.496 D PSK TX HPA Tmp 0.131 D
+Z Array Temp -4.917 D

Total Array C= 0.369 Bat Ch Cur= 0.160 Ifb= 0.021 I+10V= 0.118
TX:016 BCR:82 PWRC:36E BT:3C WC: 0

General information and telemetry samples can be found at:
http://www.arrakis.es/~ea1bcu/lo19.htm
[ANS thanks Miguel A. Menendez, EA1BCU, for this report]

UO-22
(Uplink: 145.900 or 145.975 MHz FM. Downlink 435.120 MHz FM
9600 Baud FSK)
UO-22 is operating normally.
Chris Jackson, G7UPN/ZL2TPO, has reloaded the Store and Forward
communications task on the UO-22 On-Board Computer. This task includes
incremental checksums which should make uploading slightly faster.
[ANS thanks Chris Jackson, G7UPN/ZL2TPO, Ground station and
Operations Manager of UO-22, for this report]

IO-26 (ITAMSAT)
Uplink 145.875, 145.900, 145.925, 145.950 MHz FM, Downlink 435.822 MHz
SSB, 1200 Baud PSK)
NO report at this time..

[Please send your Satellite or News reports to ANS Editor BJ Arts,
WT0N, via e-mail, at bjarts@the-bridge.net or to wt0n@amsat.org]

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